

**An innovative digital application 'MAAP':
Empowering mothers and families for
proactively detecting malnutrition in children
and taking informed action within existing
nutrition ecosystem.**

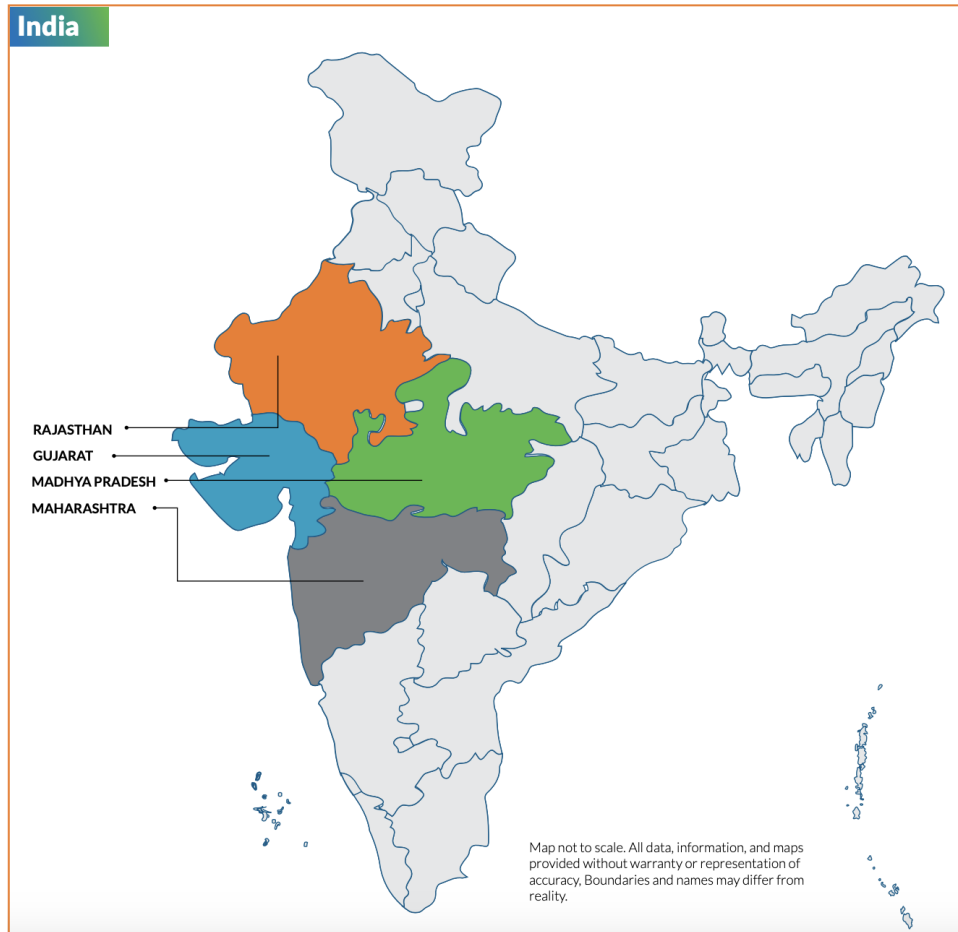
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BACKGROUND



- India is among the top three countries with most children who are wasted - 25.5 million while also holding almost a third (31%) of the world's burden for stunting⁽¹⁾.
- Action Against Hunger (ACF) India works in 4 states in the geographies with high burden of under-5 malnutrition.
- Our interventions include Community-based Management of Acute Malnutrition, First 1000 days, Food Security and Livelihoods (FSL) and Water, Sanitation and Hygiene (WASH), and Systems Strengthening.
- We leverage digital technology to identify new ways of solving the malnutrition puzzle, while also using it to empower our teams for effective and agile intervention delivery and monitoring.

BACKGROUND

- Early identification and intervention are crucial for addressing malnutrition.
- Communities already use digital tools like mobiles and social media platforms for communication and entertainment.
- Most digital tools used in programs are still operated by government and non-government service providers, missing out on the opportunity to leverage the community's familiarity with digital technology.
- This approach continues to view mothers and families as passive recipients, limiting sustainable and impactful outcomes.
- Building on these insights, Action Against Hunger India, in collaboration with a technology and design thinking firm DSDC, developed a digital tool, *MAAP*, to:
 - Empower caregivers to proactively identify child malnutrition before routine surveillance.
 - Track and monitor nutritional status of the children.
 - Take proactive corrective actions within the household and in the existing service provider ecosystem.

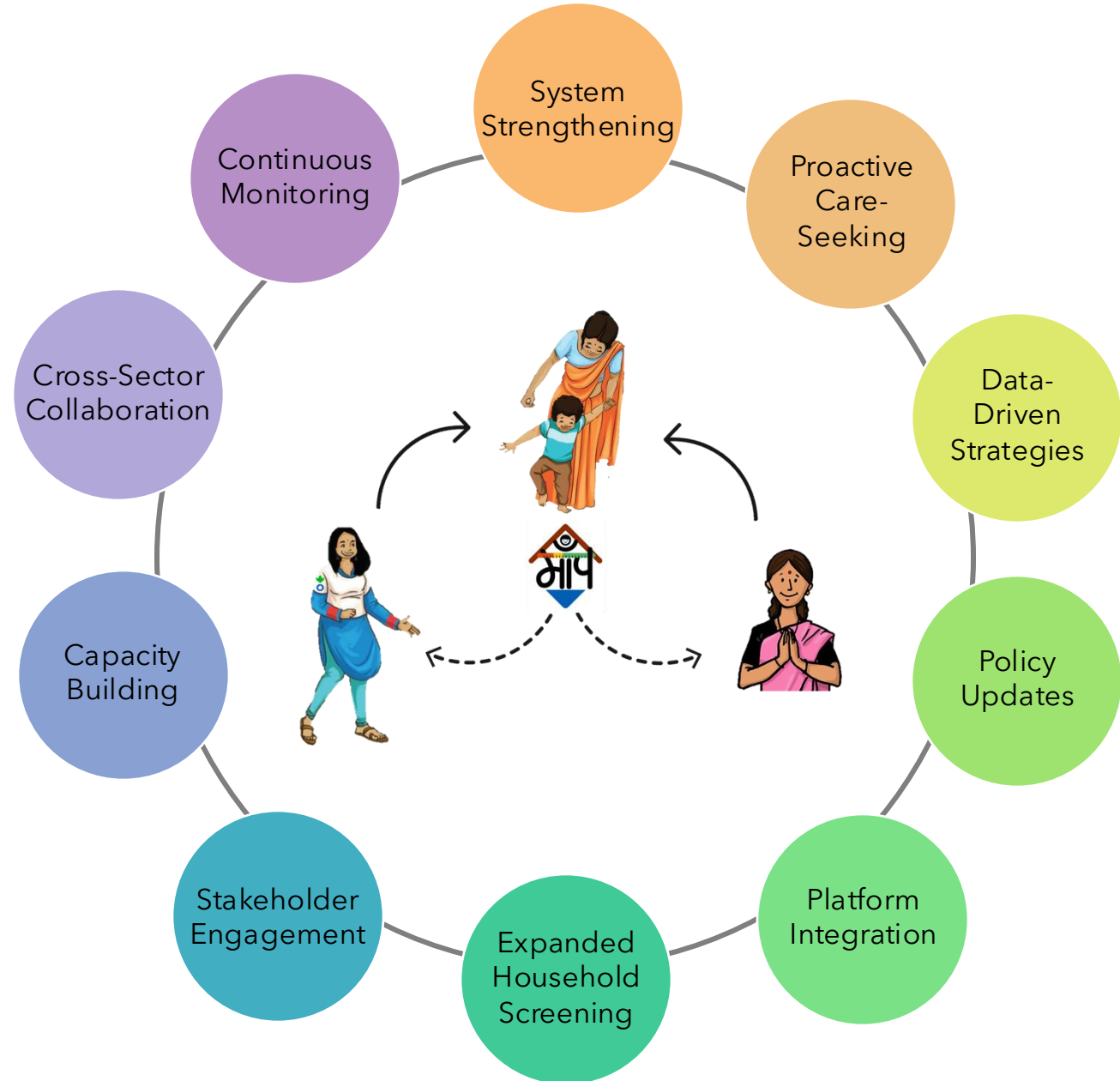
MAAP: A DIGITAL TOOL FOR PROACTIVE NUTRITION ACTION

Designed to:

- **Enhance Early Identification:** Equip caregivers to proactively recognize early signs of malnutrition by using MUAC tape, identifying visible signs of wasting, and refer to audio-visual guidelines at every stage of app use.
- **Improve Timeliness of Intervention:** Facilitate timely access to treatment and support services, improve program coverage, and contribute to the impact of malnutrition treatment efforts.
- **Promote Self-Efficacy:** Build confidence and a sense of agency among caregivers, helping them make informed decisions about their children's health.
- **Reduce Relapse:** Support sustained recovery and minimize the risk of malnutrition recurrence.
- **Inform System for Improved Programming:** Enable caregivers' proactive actions to inform the system, providing data for better program design and targeted interventions.

MAAP: CONNECTING THE DOTS

FUTURE POSSIBILITIES



METHOD IMPLEMENTED

1: Empathize & Define - Understanding Community Context

- **Empathetic Enquiry:** Engage with mothers, caregivers, and frontline workers to understand their real challenges in assessing children's nutritional status and making informed decisions.
- **Community Insights:** Explore mobile phone usage within family setups, particularly in urban slums, and analyze the practices and limitations faced by NGO and government workers in early identification efforts.
- **Needs & Preferences Mapping:** Document the knowledge levels, cultural context, and tech literacy of mothers to frame user-centric problem definitions.
- **Identifying Gaps:** Define areas where technology can bridge gaps in current nutrition programs, fostering sustainable and proactive solutions.

E.g. COLOUR PALETTE & ICON TESTING:

Understanding what they expect from the application, emotional impact of different colors, and finalizing app logo and name.

अपनी पसंद की पैलेट चुनें







 लाल रंग का मतलब

 पीले रंग का मतलब

 हरे रंग का मतलब

आइकन पहचानें



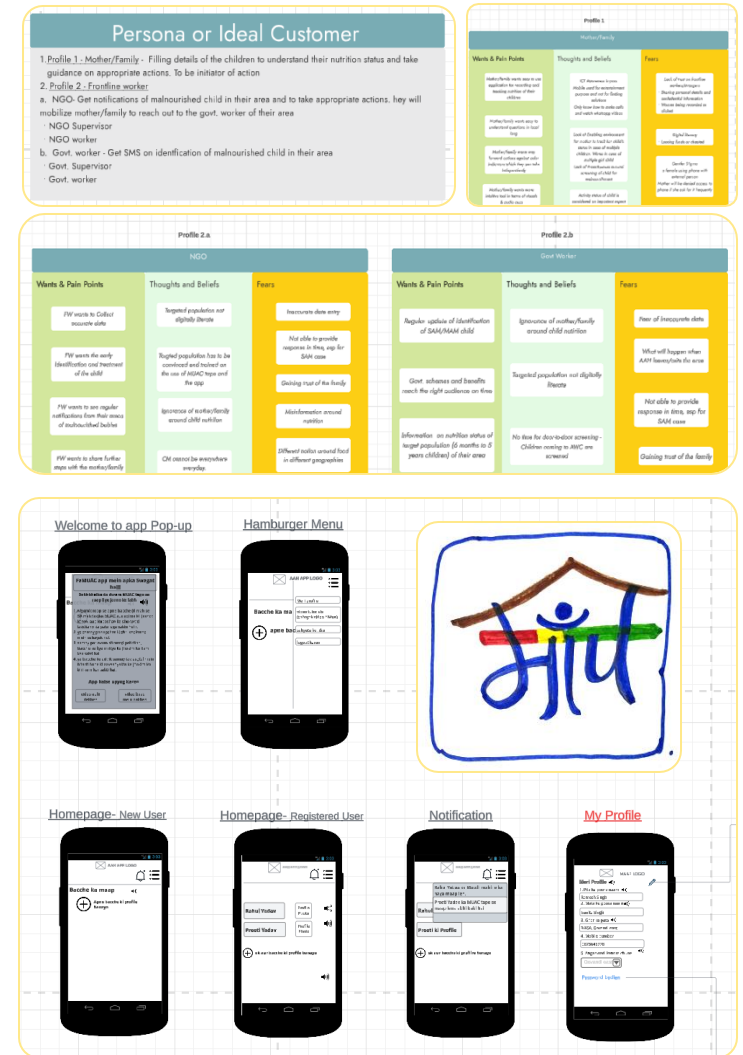




METHOD IMPLEMENTED

2: Ideate & Prototype - App Development Process

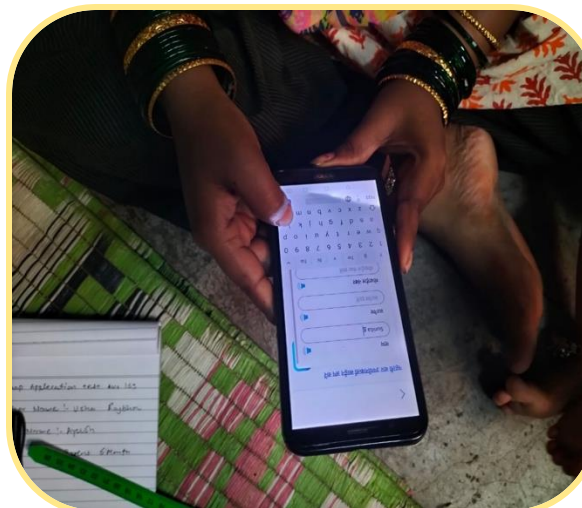
- **Creative Ideation:** Generate solutions that incorporate user needs and preferences, focusing on user-friendly and effective features.
- **User Profiles & Key Features:** Develop detailed user personas and define key features that interact seamlessly, ensuring logical data and interaction flows.
- **Design Principles:** Establish non-negotiable elements (e.g., text-to-voice for accessibility) and optional features (e.g., GPS).
- **Wireframes & Clickable Prototype:** Create prototypes and wireframes that reflect user feedback and iterate them through multiple rounds of user testing.
- **MVP Development:** Code and design the MVP using agile methods to allow rapid testing and adaptation, ensuring each feature aligns with community needs.



METHOD IMPLEMENTED

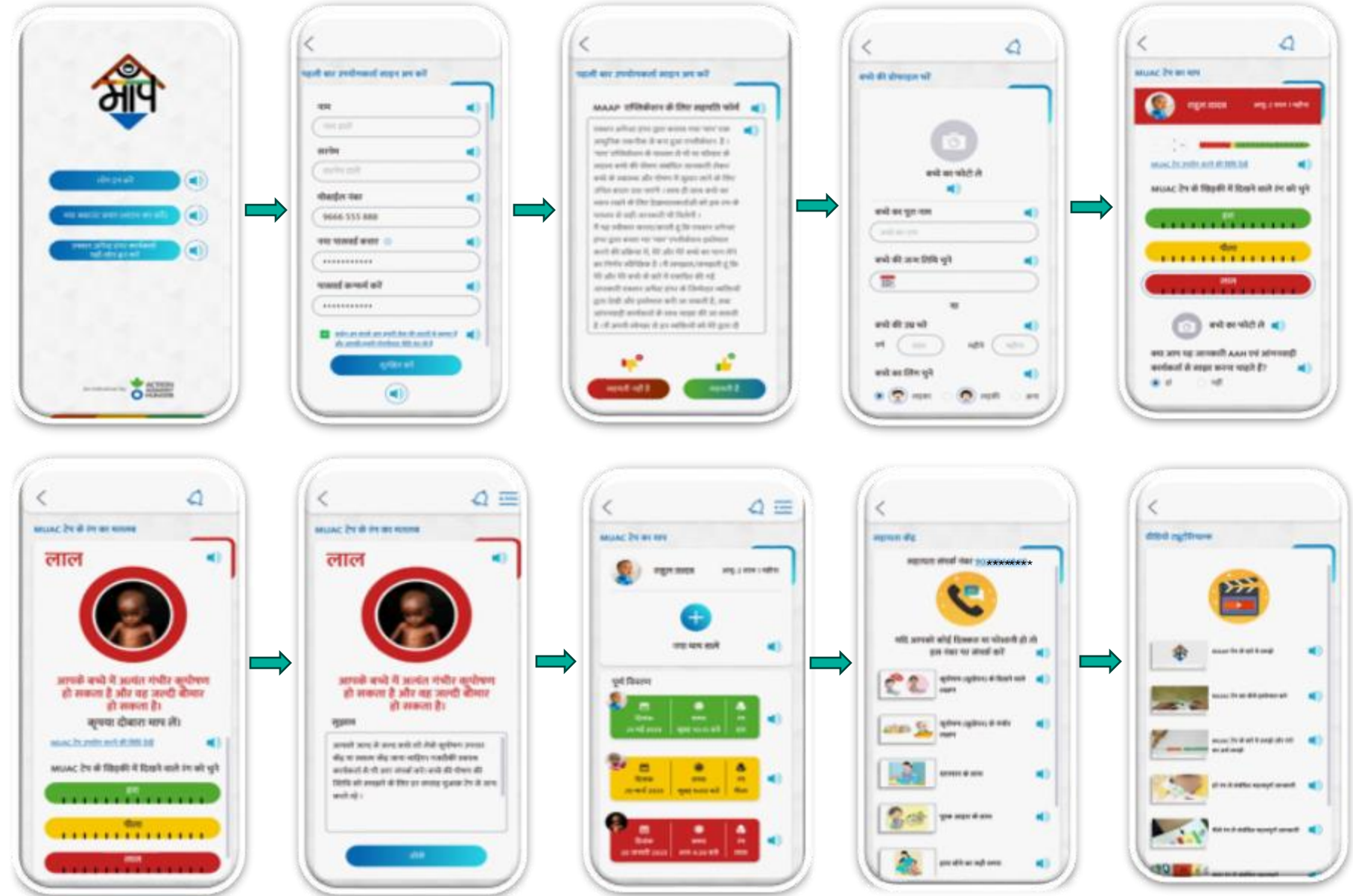
3: Test & Iterate - App Testing & Feedback

- **Rigorous Testing:** Conduct comprehensive testing in real-world settings to identify and correct usability issues, bugs, and design flaws.
- **Feedback Loop:** Collect feedback directly from mothers and caregivers, ensuring their voices guide refinement and enhancement of app features and user experience.
- **Iterative Improvements:** Apply feedback to make continuous improvements, maintaining an agile process for app enhancement.
- **Community Validation:** Finalize and deploy the app in community setups to validate its effectiveness and ensure that it delivers practical, sustainable solutions.



MAAP: KEY INITIAL FEATURES

(e.g. caregiver's profile)



Current Updates: Pre-Pilot in Urban Slums

Key Domains Being Studied :

- **App Usability:** Is the app truly beneficial to caregivers and families, or does it add to their workload?
- **Integration Scope:** Should the app function as part of the existing process or as a standalone intervention?
- **Malnutrition Variance:** Does app usage differ according to the severity of acute malnutrition?
- **Program Impact:** How do current targeted programs influence the app's adoption and usability, and vice versa?
- **Caregiver Empowerment:** Does the app enhance caregivers' confidence and knowledge in managing child nutrition?
- **Connectivity & Support:** Are reporting and support features effectively linking caregivers with frontline health workers?
- **Motivators & Barriers:** What are the primary motivators and challenges faced in using the app?

THANK YOU!